

Abstract

Light-emitting semiconductor component comprising a protective diode

The invention relates to a light-emitting semiconductor component which contains a sequence of semiconductor layers (2) with an area of p-doped semiconductor layers (4) and n-doped semiconductor layers (3) between which a first pn junction (5a, 5b) is formed. The pn junction (5a, 5b) is subdivided into a light-emitting section (7) and a protective-diode section (8) in a lateral direction by means of an insulating section (6). An n-doped layer (9), which forms a second pn junction (10) which acts as a protective diode along with the p-doped area (4), is applied to the p-doped area (4) in the area of the protective-diode section (8), the first pn junction (5b) in the protective-diode section (8) having a larger area than the first pn junction (5a) in the light-emitting section (7). The protective-diode section (8) protects the light-emitting semiconductor component from voltage pulses due to electrostatic discharges (ESD).

Figure 1